

**PHILIP MORRIS U.S.A.**  
**INTER-OFFICE CORRESPONDENCE**

**RESTRICTED  
DISTRIBUTION**

## OBJECTIVE

Provide entomological support in a timely manner to PM USA. Perform research on cigarette beetle (CB) control. Serve as the experts within the company to provide assistance in controlling the CB and other injurious pests at all locations.

**STATUS**

## **1. Research Studies**

- a. Kabatt® protection for stems and scrap during 24 months of lab storage

**STATUS:** Completed and memo written. Materials treated at levels of 3ppm and higher will give 100% CB control.

- b. Kabat® fate during tobacco processing

**STATUS:** Focusing on the expansion process. Data from DIET suggested a 20% methoprene loss during the process. Attempts to do a "mass balance" for methoprene were not successful.

- c. **Methoprene S-isomer testing**

**STATUS:** Completed and memo written. At equal concentrations, the S-isomer was twice as active as the racemic mixture.

- d. CB control agents other than Kabat®

**STATUS:** Continuing to investigate Nylar® (IGR), and other IGRs and tobacco hornworm purge fluid.

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- e. CB physiological differences to methoprene and phosphine

**STATUS:** Continuing to investigate biological differences between laboratory and field populations regarding methoprene and phosphine.

- f. Evaluation of ELISA methoprene test kit

**STATUS:** Efforts coordinated with members of Project 6902. Two suppliers of kits have been evaluated. As of this date, neither kit has been recommended for use in the field.

## 2. Support Projects

- a. Infestation Control Manual

**STATUS:** Distribution via TTG has been completed.

- b. Customer complaint evaluation from Product Audit Facility

**STATUS:** Continuing to monitor insect infestations of finished product as related to customer complaints and determine means of prevention.

- c. Assist Engineering Department personnel with direct cylinder conditioning (DCC) of various tobaccos

**STATUS:** Supported work completed at Cabarrus. One hundred percent kill of all life stages was achieved if the conditioner was operated properly.

- d. Assist PM USA and PMI as requested

**STATUS:** Continuing to provide operating support to PM Companies.

## PLANS: 4th Quarter of 1991

### 1. Research Studies

- a. Kabat® protection for stems and scrap during 24 months of lab storage

- 1. Write proposal on field trial.

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- b. Kabat® fate during tobacco processing
    - 1. None at this time.
  - c. Kabat® strategies to achieve application on all tobaccos
    - 1. None at this time.
  - d. CB control agents other than Kabat®
    - 1. After obtaining toxicity and pyrolysis data, conduct feeding studies using Nylar® on feral CB populations to determine dose response relationships.
  - e. CB physiological differences to methoprene and phosphine
    - 1. Continue to observe and examine CB populations collected from Kabat® treated tobacco warehouses.
    - 2. As requested, continue to supply USDA with feral CBs from phosphine-treated warehouses.
  - f. Phytosanitary certification using conditioning for export cut filler (ECF)
    - 1. Examine ECF facilities at Stockton St./Westab Annex for possibly using this procedure.
  - g. Evaluation of ELISA methoprene test kit
    - 1. Support the personnel in Project 6902 in their evaluations.
2. Support Projects
- a. Infestation Control Manual
    - 1. Follow-up visits to international licensees and affiliates as requested by TTG personnel.
    - 2. Review and update the manual.

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- b. Customers complaint evaluation from Product Audit Facility
    - 1. Continue to evaluate market customer complaints.
  - c. Assist PM USA and PMI
    - 1. Provide assistance as requested.
3. Resources: 5.0 persons in Project 1101. Additional resources: 0.25 persons from Analytical Research Division to conduct periodic methoprene residue analyses.

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Central Files

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